

## Flow monitor UBX



- Suitable for nominal pipe sizes DN 65, DN 80 und DN 100 (further pipe sizes on request)
- Micro switch with gold contact
- Process connection with oval flange
- For temperature range -40 °C up to +140 °C

## Characteristics

The devices work via the principle of a bellow-supported paddle which triggers directly a microswitch in case of flow or no flow.

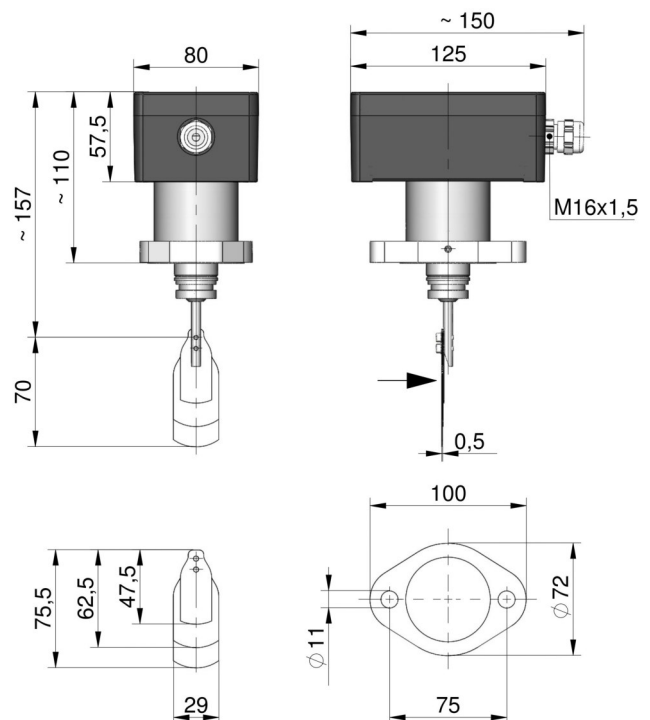
## Technical Data

|                                                          |                                                                                                                                                             |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Switch</b>                                            | Micro switch                                                                                                                                                |
| <b>Nominal diameter</b>                                  | DN 65, DN 80, DN 100                                                                                                                                        |
| <b>Process connection</b>                                | Oval flange                                                                                                                                                 |
| <b>Adjustment switch values</b><br>(for decreasing flow) | DN 65: 6.0 m³/h ± 2.0 m³/h with H₂O<br>DN 80: 10.5 m³/h ± 2.5 m³/h with H₂O<br>DN 100: 20.5 m³/h ± 3.0 m³/h with H₂O<br>Further switching values on request |
| <b>Q<sub>max.</sub></b><br>(recommended)                 | DN 65: 33 m³/h H₂O<br>DN 80: 45 m³/h H₂O<br>DN 100: 75 m³/h H₂O<br>(all values for v = about 2 m/s)                                                         |
| <b>Pressure rate</b>                                     | PN 16                                                                                                                                                       |
| <b>Medium temperature</b>                                | -40...+140 °C (no superheated steam)                                                                                                                        |
| <b>Ambient temperature</b>                               | -40...+90 °C                                                                                                                                                |
| <b>Media</b>                                             | Water, mineral oil, silicone oil, ester oil                                                                                                                 |
| <b>Wiring diagram</b>                                    | <p>Single changeover contact (wiring 0.371-2)</p> <p>1 2 3</p> <p>Double changeover contact (wiring 0.409-1)</p> <p>1 2 3 4 5 6</p>                         |

**UBX-032EM / EK**

|                                     |                                                                                                                                                                                   |             |                                                                                                    |                  |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------|------------------|
| Switching voltage/Switching current |                                                                                                                                                                                   |             | A max. ohmic                                                                                       | A max. inductive |
|                                     | max.                                                                                                                                                                              | 250 V AC/DC | 6 A                                                                                                | 1,5 A            |
|                                     |                                                                                                                                                                                   | 125 V AC/DC | 6 A                                                                                                | 2 A              |
|                                     |                                                                                                                                                                                   | 24 V DC     | 6 A                                                                                                | 5 A              |
|                                     |                                                                                                                                                                                   | 12 V DC     | 6 A                                                                                                | 6 A              |
|                                     |                                                                                                                                                                                   |             | A min.                                                                                             |                  |
| min.                                | 4 V                                                                                                                                                                               | 1 mA        |                                                                                                    |                  |
| Protection class                    | 2 – Safety insulation                                                                                                                                                             |             |                                                                                                    |                  |
| Ingress protection                  | IP 65 / IP 67<br>(When using an approved connection cable)                                                                                                                        |             |                                                                                                    |                  |
| Electrical connection               | Cable gland M16x1,5<br>( for cable diam. 7...11 mm)                                                                                                                               |             |                                                                                                    |                  |
| Materials with medium contact       | Brass version:<br>CW614N vernickelt,<br>1.4305, 1.4310,<br>1.4541, FVMQ<br>Oval flange: zinc<br>plated steel                                                                      |             | Stainless steel<br>version<br>1.4305, 1.4310,<br>1.4541, FVMQ<br>Oval flange: zinc<br>plated steel |                  |
| Switch housing material             | Die-cast aluminium                                                                                                                                                                |             |                                                                                                    |                  |
| Weight                              | 1,3 kg                                                                                                                                                                            |             |                                                                                                    |                  |
| Mounting position                   | Standard: horizontal flow; switching unit not recommended underneath; other installation positions are possible; the installation position affects the switching point and range. |             |                                                                                                    |                  |

## Dimensions



Paddle dimension and geometry are identical for DN 65; DN 80 and DN 100

**Attention! Process gasket not included in scope of supply**

## Handling and operation

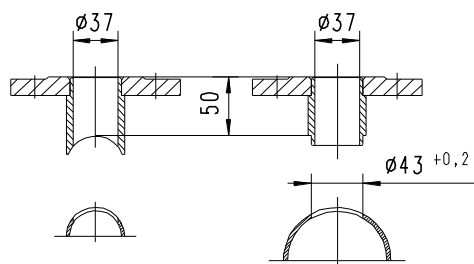
Installation and operating instructions can be found in the separate operating manual.

## Notes

- Adjustment: the switching point is set at factory in a defined nominal pipe diameter with the values specified in the „Technical data“ table above. Different switching values on request. Adjustments for silicone oil or ester oil are measured in H<sub>2</sub>O due to their low viscosity. Switching values and Q-max.values for mineral oils depend on the viscosity and can deviate from the specified technical data.
- Switching points set at factory are secured by gluing and cannot be changed later.
- Paddle attachment secured by bonding.
- Include straight calming section of 10 x DN in inlet and outlet
- Provide a filter for contaminated media.
- It must be ensured that the values given for voltage, current, and power are not exceeded.
- The electrical details apply to ohmic loads. Capacitive and inductive loads must be operated using a protective circuit..

## Installation recommendation

Use a tube with standard wall thickness as per DIN 2448.



Pipe dimensions acc. to Din 2448 used for calibration at factory. Deviating installation conditions have an influence to set adjustment-/switching values.

| DN  | pipe-outer-diam. | pipe wall thickness |
|-----|------------------|---------------------|
| 65  | 76,1 mm          | 2,9 mm              |
| 80  | 88,9 mm          | 3,2 mm              |
| 100 | 114,3 mm         | 3,6 mm              |

## Ordering code

UBX -  1.  2.  3.  4.

| 1. Process connection        |                                   |
|------------------------------|-----------------------------------|
| 032E                         | Flange                            |
| 2. Body material             |                                   |
| M                            | Brass                             |
| K                            | Stainless steel                   |
| 3. Contacts                  |                                   |
| S                            | Single changeover contact         |
| D                            | Double changeover contact         |
| 4. For nominal pipe diameter |                                   |
| 065                          | DN 65                             |
| 080                          | DN 80                             |
| 100                          | DN 100                            |
|                              | Further pipe diameters on request |

## Options

- Electrical connections
  - plug DIN 43650-A
  - Harting plug
  - cable gland M 20 x 1,5 (opposite to flow direction)
- Optional temperature range: on request
- Further process connections on request

## Ordering information

- Specify direction of flow, medium, pipe diameter and required switch point
- For oils, state viscosity or oil type and temperature (e.g. ISO VG 68 at 40°C). Possible switching values are determined individually.
- Adjustment of switchpoint is made in defined pipe size.